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## Community Protection and Hazardous Waste Reduction Initiative Pilot Project Proposal for Contaminated Soil

### INTRODUCTION:

The Community Protection and Hazardous Waste Reduction (Initiative) is a two-year effort that was established and funded through a Budget Change Proposal that was approved for the 2015/16 and 2016/17 fiscal years. The Initiative is designed to effectively leverage DTSC's goal of a 50 percent reduction of hazardous waste generated in California and disposed into hazardous waste landfills by 2025. Under the Initiative, DTSC is to select up to three pilot-scale projects to reduce hazardous wastes that are generated in significant quantities, can pose substantial risks or hazards to human health or the environment, and are treated or disposed in communities that are disproportionately burdened by multiple sources of pollution. To assist in the implementation of the Initiative, an Advisory Committee has been formed, comprised of individuals with relevant and diverse expertise in issues related to hazardous waste, hazardous waste management, and the impacts of hazardous wastes on Californians.

### BACKGROUND:



The California Department of Toxic Substances Control (DTSC) regulates the generation, handling, transportation, storage, treatment and disposal of hazardous wastes in the State. Contaminated soil generated through site remediation projects accounts for roughly one quarter of California's hazardous waste, and is the largest single hazardous waste stream in California<sup>1</sup>. This waste is shipped under hazardous waste manifest to offsite disposal facilities. In 2014 alone, a total of 410,400 tons of contaminated soil waste was generated in California.

DTSC is committed to protecting all California communities from the effects of exposure to hazardous waste. The Department will conduct and aggressively pursue any remediation activities that will protect communities at specific sites, including offsite disposal of contaminated soil. This pilot project would explore innovative approaches that permanently remove hazardous constituents from contaminated sites and surrounding communities, while not relying on offsite transportation and disposal of contaminated soil. All phases of this pilot project will focus on new approaches to eliminating or minimizing exposure to contaminated soil and its associated environmental impacts. The project will not focus on reducing the number or quality of soil remediation activities conducted by DTSC.

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<sup>1</sup> According to internally validated data from DTSC's Hazardous Waste Tracking System (HWTS), in 2014 California Waste Code (CWC) 611 – *Contaminated Soil from Site Clean-Ups* accounted for 410,402 tons of hazardous waste generated in the State. The next largest single waste stream, CWC 221 – *Waste Oil and Mixed Oil* accounted for 297,511 tons of hazardous waste generated in the State. According to manifest information contained within HWTS, a total of 1,716,845 tons of hazardous waste were generated in CA in 2014.



This pilot project would build on efforts completed to date on state, national, and international levels to explore and identify feasible remediation technologies that would result in the reduction of contaminated soils being generated and shipped for disposal.

### **PILOT PROJECT GOALS AND OBJECTIVES:**

The broad goals and objectives of this pilot project are to achieve the following:

- Gather all available information related to the evaluation of waste reduction opportunities and barriers, including:
  - Technologies and practices to reduce generation
  - Regulatory and legal tools
  - Economic tools and factors
  - Environmental factors
- Identify and evaluate of one or more technologies for onsite treatment of contaminated soil and prioritize onsite treatment over offsite land disposal.
- Develop the following work products:
  - A description of preferred management practices, programs, incentives, requirements, prohibitions, or other measures necessary to reduce the offsite disposal of contaminated soil;
  - A baseline of state-wide contaminated soil disposal and generation data, from which reductions can be measured;
  - A list of those onsite treatment technologies that have been determined to be technically feasible, an assessment of the potential for the amount of offsite disposal reductions that might be achieved if implemented, costs, economic impacts, and an evaluation of factors that could influence the achievement of those remediation technologies;
  - Proposal of long term numeric goals for the reduction of contaminated soil waste, including interim targets and milestones, costs, economic impacts, and the recommendations needed to achieve those milestones and the long-term numeric goals;
  - Identification and analysis of procedural barriers to the selection of cleanup remedies that are more costly than landfill disposal;
  - Discussion of community involvement strategies in cleanup decisions that would incorporate community feedback not only from communities near contaminated sites but also from communities near disposal facilities;
  - Discussion of community involvement strategies in cleanup decisions that would incorporate community preference for onsite treatment compared to offsite disposal; and
  - Recommendations of the most cost-effective strategies to carry out the identified reductions.



## **PILOT PROJECT SUMMARY:**

To achieve the goals and objectives stated above, a pilot project focused on contaminated soil would entail; (1) data gathering; (2) identification and exploring implementation of remediation technologies; and (3) analyzing the available data and making recommendations.

### **Data Gathering:**

The data gathering portion of this project would involve collecting directly, and through solicitation from soil remediation technology vendors, responsible parties, other governmental agencies (local, state, federal as well as other nations), academia, affected communities and community advocates, and other interested stakeholders, all available data related to contaminated soil generation and management.

### **Identification and Evaluation of Pilot Proposal(s):**

This portion of the project would involve the solicitation and evaluation of substantive proposals for pilot scale implementation of candidate soil remediation technologies. The types of proposals to be considered would include not only proposals from remediation technology vendors, but also proposals that could require DTSC to seek participation or partnerships, or the securing of additional financial resources. Proposals would need to be identified and selected within a time frame during the Initiative that allows for the proposal to be initiated and its progress evaluated, although they would not need to be fully completed within the planned time frame of the Initiative.

### **Analysis and Recommendations:**

At the conclusion of the Initiative, DTSC staff will draft a report summarizing the information gathered, progress made, and findings and recommendations as they relate to the goals and objectives. The final report will include a baseline analysis of the volume of contaminated soil generated in the State. The report will also include a discussion of the soil remediation technologies presented to DTSC, their applicability, how they compare to the nine criteria of the National Contingency Plan, their comparative environmental factors, and any other information on opportunities and barrier. The report may include recommendations to propose new regulations, develop or monetize incentive programs, or other methods of reducing the offsite disposal of contaminated soil waste. Finally, the report will include a set of recommended actions that DTSC and others might consider as next steps to pursue and implement waste reduction efforts, and to reduce impacts to communities.

By June 30, 2017, the final report and recommendations will be sent to the Secretary of the California Environmental Protection Agency and to the relevant legislative committees with jurisdiction over the regulation of contaminated soil.